

WHAT IS CLAIMED IS:

1. A slide type portable terminal, comprising:
a main unit including a plurality of key sections on a surface of the main unit;
a slide unit configured to slide along the surface of the main unit to cause the key sections of the main unit to be selectively covered; and
a slide driving mechanism configured to cause the slide unit to slide using elastic forces of which elastic deformation is guided by guide bars, when the slide unit has been moved to a predetermined position with respect to the main unit.

2. The terminal of claim 1, wherein each of the guide bars has each of both ends rotatably coupled to the main and slide units, respectively, and wherein the slide driving mechanism comprises:

rotating guides rotatably secured on one of the main and slide units, that are formed with through-holes through a first end of said respective guide bars penetrates, and
wherein the rotating guides support the guide bars so that the lengths of portions of the guide bars protruding through the through-holes are changed as the slide unit is moved.

3. The terminal of claim 2, wherein the main unit comprises a main plate fixed thereto and the slide unit further comprises a slid plate fixed thereto, and wherein said each of both ends of each guide bar are respectively connected to the main and slide plates.

4. The terminal of claim 3, wherein a connection ring is formed at the second end of the both ends of each guide bar opposite to the first end thereof penetrating through the through-hole of the rotating guide, and the connection ring is rotatably connected to a hinge shaft formed on the main or slide plate opposite to the rotating guide.

5. The terminal of claim 4, wherein coil springs are installed such that the guide bars penetrate therethrough, and each of the coil springs has one end supported by the connection ring and the other end supported around the through-hole of the rotating guide.

6. The terminal of claim 3, wherein the guide bars or rotating guides provided in the main plate are installed at positions corresponding to the center of a movement stroke of a slide plate.

7. The terminal of claim 6, comprising:
a stopper mechanism configured to cause the slide unit to be selectively stopped with respect to the main unit at positions where the slide unit exposes selected ones of the plurality of the key sections;
stopper springs with relatively protruding projections; and
stopper grooves in which the projections of the stopper springs are selectively seated.

8. The terminal of claim 1, comprising a stopper mechanism configured to cause the slide unit to be selectively stopped with respect to the main unit at positions where the slide unit exposes selected ones of the plurality of the key sections.

9. The terminal of claim 8, wherein the stopper mechanism is provided at mutually corresponding positions in the main and slide plates, and comprises stopper springs with relatively protruding projections, and stopper grooves in which the projections of the stopper springs are selectively seated.

10. The terminal of claim 9, wherein the stopper grooves are formed to be symmetric with each other at lateral ends of the main or slide plate.

11. A slide type portable terminal, comprising:
a main unit including a plurality of key sections on a surface of the main unit;
a slide unit configured to slide along the surface of the main unit to cause the key sections of the main unit to be covered and exposed; and

driving means for sliding the slide unit using elastic forces of coil springs of which elastic deformation is guided by rotatable guide means, when the slide unit has been moved to a predetermined position with respect to the main unit; and

stopper means for causing the slide unit to be selectively stopped with respect to the main unit at positions where the slide unit exposes only selected key sections.

12. The terminal of claim 11, wherein the guide means has both ends rotatably coupled to the main and slide units, respectively, and wherein the driving means comprises:

rotating guide means that are formed with through-holes through which ends of respective guide means penetrate and are rotatably secured on one of the main and slide units, thereby supporting the guide means such that the lengths of portions of the guide means axially supporting the coil springs are changed as the slide unit is moved.

13. The terminal of claim 12, wherein the slide unit further comprises a main plate fixed thereto and the slide unit further comprises a slide plate fixed thereto, and both ends of each guide means are respectively connected to the main and slide plates.

14. The terminal of claim 13, wherein connection means is formed at the other end of the both ends of each guide means opposite to the end thereof penetrating through the through-hole of the rotating guide means, for rotatably connecting to a hinge shaft formed on the main or slide plate opposite to the rotating guide means.

15. The terminal of claim 14, wherein the coil springs are installed such that the guide means penetrate therethrough, and each of the coil springs has one end supported by the connection means and the other end supported around the through-hole of the rotating guide means.

16. The terminal of claim 15, wherein the stopper means is provided at mutually corresponding positions in the main and slide plates, and comprises:

engaging means for providing relatively protruding projections; and
engagement means for engaging the engaging means.

17. The terminal of claim 16, wherein the engaging means are formed to be symmetric with each other at lateral ends of the main or slide plate.

18. The terminal of claim 17, wherein the stopper means causes the main unit to be stopped a first position where only a first key section is exposed, and a second position where first and second key sections are exposed.

19. The terminal of claim 11, wherein the guide means or the rotating guides means provided in the main plate are installed at positions corresponding to the center of an entire movement stroke of a slide plate.

20. A slide type portable terminal, comprising:
a main unit including a plurality of key sections exposed in a surface of the main unit;

a slide unit configured to slide along the surface of the main unit to cause the key sections of the main unit to be selectively covered; and

a stopper mechanism configured to temporarily fix the slide unit at a plurality of positions where the key sections are selectively exposed, wherein the stopper mechanism comprises,

a plurality of stopper springs with protruding projections on one of the main and the slide units, and

a plurality of stopper grooves recessed on the other of the main and the slide units and configured to removably receive the stopper springs, wherein the stopper springs move from a first stopper groove to a second stopper groove when force is applied to the slide unit.

21. The slide type portable terminal of claim 20, wherein the slide unit can be selectively slid to an open position where both the first and second key sections of the main unit are exposed, a first position where only one of the key sections is exposed, and a closed position where both the first and second key sections are covered.

22. The slide type portable terminal of claim 21, wherein each stopper springs comprises:

an extension hole;

a protruding member extending through the extension hole to a first side;

and

an insertion slot configured to fix ends of the protruding member on a second side of the extension hole opposite the first side, and wherein the stopper springs can be elastically deformed.

23. The slide type portable terminal of claim 22, comprising a slide driving mechanism configured to cause the slide unit to slide using a resilient member of which elastic deformation is guided by rotatable guide bars, when the slide unit has been moved to a predetermined position with respect to the main unit, wherein lengths of the guide bars supporting the resilient member are changed as the slide unit is moved.